**Summary of Lesson Plans of College Faculty**

**Name of College: Indira Gandhi National College, Ladwa (KKR) Academic Session: 2019-20 Semester: Odd For the Month of July 2019**

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| **Sr. No.** | **Name of Assistant/ Associate Professor** | **Subject** | **Topics/Chapter to be covered** | **Academic Activity to be organized** | **Topic of Assignments/Tests to be given to the students** |
|  |  |  | **B.Sc. I** |  |  |
| 1. | Dr. Amit Kumar | Inorganic Chemistry | Atomic Structure: Upto s,p,d,f orbitals | Subject Awareness Lecture |  |
| 2. | Dr. R.K. Chauhan | Physical Chemistry | Gaseous State: Upto mean free path |  |  |
| 3. | Dr. R.K. Chauhan | Organic Chemistry | Stereo Chemistry of organic compounds: Upto diastereomers |  |  |
|  |  |  | **B.Sc. II** |  |  |
| 1. | Dr. Amit Kumar | Inorganic Chemistry | Chemistry of d-Block elements: Upto properties of d-block elements | Subject Awareness Lecture |  |
| 2. | Dr. Amit Kumar | Physical Chemistry | Thermodynamics: Upto state and Path functions |  |  |
| 3. | Dr. R.K. Chauhan | Organic Chemistry | Alcohols: Upto its acidic nature |  |  |
|  |  |  | **B.Sc. III** |  |  |
| 1. | Dr. Amit Kumar | Inorganic Chemistry | Metal-Ligand Bonding in Transition metal complexes | Subject Awareness Lecture |  |
| 2. | Dr. Amit Kumar | Physical Chemistry | Quantum Mechanics-I: Upto Hamiltonian operator |  |  |
| 3. | Dr. R.K. Chauhan | Organic Chemistry | NMR Spectroscopy: Upto deshielding of protons |  |  |

**Summary of Lesson Plans of College Faculty**

**Name of College: Indira Gandhi National College, Ladwa (KKR) Academic Session: 2019-20 Semester: Odd For the Month of August 2019**

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| **Sr. No.** | **Name of Assistant/ Associate Professor** | **Subject** | **Topics/Chapter to be covered** | **Academic Activity to be organized** | **Topic of Assignments/Tests to be given to the students** |
|  |  |  | **B.Sc. I** |  |  |
| 1. | Dr. Amit Kumar | Inorganic Chemistry | Atomic Structure: From Aufbau principle Periodic table and Atomic properties | Group Discussion |  |
| 2. | Dr. R.K. Chauhan | Physical Chemistry | Gaseous State: From Real Gas behavior |  |  |
| 3. | Dr. R.K. Chauhan | Organic Chemistry | Stereo Chemistry: From types of diastereomers  Structure and bonding |  |  |
|  |  |  | **B.Sc. II** |  |  |
| 1. | Dr. Amit Kumar | Inorganic Chemistry | Chemistry of d-Block elements: From Comparison of properties of 3d elements with 4d and 5d elements | Group Discussion |  |
| 2. | Dr. Amit Kumar | Physical Chemistry | Thermodynamics: From thermodynamic process |  |  |
| 3. | Dr. R.K. Chauhan | Organic Chemistry | Alcohols: From reactions of alcohols  Phenols |  |  |
|  |  |  | **B.Sc. III** |  |  |
| 1. | Dr. Amit Kumar | Inorganic Chemistry | Thermodynamics and kinetic aspects of metal complexes | Group Discussion |  |
| 2. | Dr. Amit Kumar | Physical Chemistry | Quantum Mechanics-I: From Hermitian operator |  |  |
| 3. | Dr. R.K. Chauhan | Organic Chemistry | NMR Spectroscopy: From proton counting |  |  |

**Summary of Lesson Plans of College Faculty**

**Name of College: Indira Gandhi National College, Ladwa (KKR) Academic Session: 2019-20 Semester: Odd For the Month of September 2019**

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| **Sr. No.** | **Name of Assistant/ Associate Professor** | **Subject** | **Topics/Chapter to be covered** | **Academic Activity to be organized** | **Topic of Assignments/Tests to be given to the students** |
|  |  |  | **B.Sc. I** |  |  |
| 1. | Dr. Amit Kumar | Inorganic Chemistry | Covalent bond |  |  |
| 2. | Dr. R.K. Chauhan | Physical Chemistry | Critical phenomenon |  |  |
| 3. | Dr. R.K. Chauhan | Organic Chemistry | Mechanism of organic reactions |  | Assignment on Isomerism |
|  |  |  | **B.Sc. II** |  |  |
| 1. | Dr. Amit Kumar | Inorganic Chemistry | Coordination compounds |  | Assignment on Coordination compounds |
| 2. | Dr. Amit Kumar | Physical Chemistry | Chemical equilibrium |  | Assignment on Thermodynamical properties |
| 3. | Dr. R.K. Chauhan | Organic Chemistry | Epoxides  Carboxylic acids and acid derivatives: upto effect of substituents on acid strength |  |  |
|  |  |  | **B.Sc. III** |  |  |
| 1. | Dr. Amit Kumar | Inorganic Chemistry | Magnetic properties of transition metal complexes |  |  |
| 2. | Dr. Amit Kumar | Physical Chemistry | Physical properties and molecular structure |  |  |
| 3. | Dr. R.K. Chauhan | Organic Chemistry | Carbohydrates: upto fructose |  | Assignment on Structure elucidation by NMR |

**Summary of Lesson Plans of College Faculty**

**Name of College: Indira Gandhi National College, Ladwa (KKR) Academic Session: 2019-20 Semester: Odd For the Month of October 2019**

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| **Sr. No.** | **Name of Assistant/ Associate Professor** | **Subject** | **Topics/Chapter to be covered** | **Academic Activity to be organized** | **Topic of Assignments/Tests to be given to the students** |
|  |  |  | **B.Sc. I** |  |  |
| 1. | Dr. Amit Kumar | Inorganic Chemistry | Ionic Solids: Upto Born-Haber cycle | Poster Making Competition | Assignment on Atomic Properties |
| 2. | Dr. R.K. Chauhan | Physical Chemistry | Liquid States  Solid State: Upto X-ray diffraction |  | Test of Molecular theory of Gases |
| 3. | Dr. R.K. Chauhan | Organic Chemistry | Alkanes and Cycloalkanes: Upto free radical halogenation of alkanes |  |  |
|  |  |  | **B.Sc. II** |  |  |
| 1. | Dr. Amit Kumar | Inorganic Chemistry | Non-aqueous solvents: Upto types and charcteristics | Poster Making Competition |  |
| 2. | Dr. Amit Kumar | Physical Chemistry | Distribution Law: Upto aniline hydrochloride |  |  |
| 3. | Dr. R.K. Chauhan | Organic Chemistry | Carboxylic Acids and Acid derivatives: From preparartion of Carboxylic Acids  UV absorption spectroscopy: Upto auxochrome |  | Test on Alcohols and Phenols |
|  |  |  | **B.Sc. III** |  |  |
| 1. | Dr. Amit Kumar | Inorganic Chemistry | Electronic spectra of Transition metal complexes: Upto Orgel energy level diagram | Poster Making Competition | Test of Transition metal complexes |
| 2. | Dr. Amit Kumar | Physical Chemistry | Spectroscopy, Rotational and vibrational spectrum |  | Assignment on Quantum Mechanics |
| 3. | Dr. R.K. Chauhan | Organic Chemistry | Carbohydrates: from open chain structure |  |  |

**Summary of Lesson Plans of College Faculty**

**Name of College: Indira Gandhi National College, Ladwa (KKR) Academic Session: 2019-20 Semester: Odd For the Month of November 2019**

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| **Sr. No.** | **Name of Assistant/ Associate Professor** | **Subject** | **Topics/Chapter to be covered** | **Academic Activity to be organized** | **Topic of Assignments/Tests to be given to the students** |
|  |  |  | **B.Sc. I** |  |  |
| 1. | Dr. Amit Kumar | Inorganic Chemistry | Ionic Solids: From Solvation energy |  |  |
| 2. | Dr. R.K. Chauhan | Physical Chemistry | Solid State: From Bragg’s law |  |  |
| 3. | Dr. R.K. Chauhan | Organic Chemistry | Cycloalkanes |  |  |
|  |  |  | **B.Sc. II** |  |  |
| 1. | Dr. Amit Kumar | Inorganic Chemistry | Non-aqueous solvents: From Reactions in non-aqueous solvents |  |  |
| 2. | Dr. Amit Kumar | Physical Chemistry | Distribution Law: From potassium tri-iodide complex |  |  |
| 3. | Dr. R.K. Chauhan | Organic Chemistry | UV absorption spectroscopy: From Bathochromic shift |  |  |
|  |  |  | **B.Sc. III** |  |  |
| 1. | Dr. Amit Kumar | Inorganic Chemistry | Electronic spectra of Transition metal complexes: discussion of electronic spectrum |  |  |
| 2. | Dr. Amit Kumar | Physical Chemistry | Raman spectrum |  |  |
| 3. | Dr. R.K. Chauhan | Organic Chemistry | Organo-metallic compounds |  |  |